# Belden



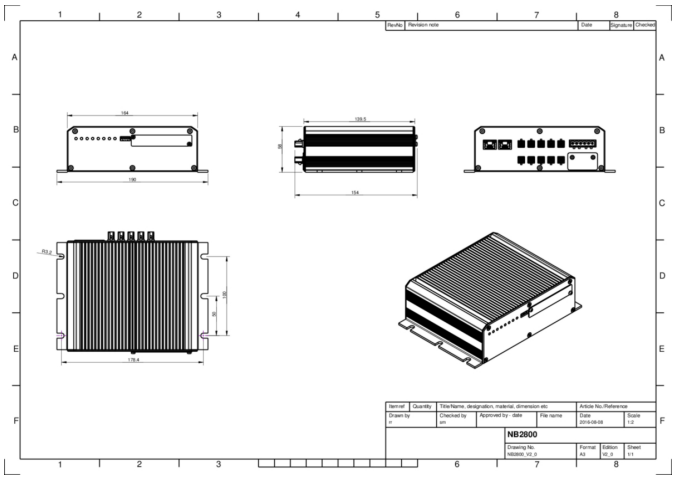
## Product: NB2800-NWac-G

Vehicle Router with 2x GbE (RJ45), -25..+70°C, 5G, Wi-Fi AC,

### Product Description

Vehicle approved, high-performance wireless router. 2x Gigabit Ethernet (RJ45). Temperature range -25..+70°C. 5G cellular modem. 802.11ac Wi-Fi modem.

### Technical Drawing




### Technical Specifications

#### Product Overview

| | |
|---|---|
| Name: | NB2800-NWac-G |
| WAN: | IPv4; IPv6; IP Passthrough; DynDNS Client; PPPoE; Voice Gateway (SIP, Call Routing, Audio); |
| License: | NRSW 5.0 and newer version, included, if the hardware is capable: Vi(virtualization), V(voice), Ix(ITxPT), F(FMS2IP), Se(eSIM consum.), S(openVPN server); |

#### Product Life Cycle

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| Life Cycle: | Active - Product is available |

#### General Information

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| Scope of delivery: | Device, General safety instructions |

#### More Interfaces

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| SIM Cards: | 4x Micro SIM (3FF) |
| Local Management and Device Replacement: | Management via Web (HTTPs); Command Line Interface (CLI) over SSH/Serial/Web; SNMP v1/v2c/v3; Discovery via LLDP, CDP, FDP, SONMP, EDP, IRDP |
| Ethernet Connector Type: | 2x Gigabit Ethernet (1000Base-T, Auto MDIX, 10/100/1000 Mbps, RJ-45) |
| Power Supply: | 1x Terminal block header (5 mm); |
| Power supply/signaling contact: | Ignition Sense: Input with delayed shutdown; |
| Serial: | 1x RS-232; Protocol EIA-232; Signals TX, RX; Signal levels: High (≥5 VDC), Low (≤ -5VDC); Bit rate up to 115kbps; Terminal block header 5mm (included) |
| GPS (global positioning system): | Multi-GNSS, Receiver BeiDou, Galileo, GLONASS, GPS, gpsOne Gen 9, Antennas: active or passive, Sensitivity: Down to -161 dBm, CEP (Circular Error Probability) ≤2m (Open sky conditions, Standalone), Min Update Rate: 1Hz, Services: Standalone, GNSS Stream NMEA or JSON |
| LEDs: | 8 LEDs (STAT, MOBx, WLANx, …) |
| Reset Function: | Pin-hole push button for reboot and factory reset |

## Radio technology

**Modules**

| Description | 3G | 4G | 5G | MIMO | Antenna Connector | Radio Protocol | Frequency Band | Access Point Functionality | Client / STA Functionality |
|---|---|---|---|---|---|---|---|---|---|
| Module 1 | DC-HSPA+/UMTS Rel. 8 Bands B1, B2, B4, B5, B8 | LTE Cat. 19 up to 5CA LTE Advanced Pro Bands B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B20, B25, B26, B28, B30, B34, B38, B40, B41, B42, B43, B48, B66, B71 | Rel 16 SA/NSA Up to 3.4Gbps Downlink / 460 Mbps Uplink sub-6 FDD/TDD Bands n1, n2, n3, n5, n7, n8, n12, n13, n14, n20, n25, n26, n28, n30, n38, n40, n41, n48, n66, n71, n77, n78 | 4x4 MIMO | 5G: 4x FAKRA D-coded male;GNSS: 1x FAKRA C-coded male; | | | | |
| Module 4 | | | | 2x2 MIMO | WLAN: 2x FAKRA I-coded male; | 802.11 a/b/g/n/ac (Wi-Fi 5) | WLAN 2.4/5 GHz | Access Point (8 SSIDs, 128 clients total); Mesh (802.11s); Bridged; Routed; IAPP; 802.11r (FT); DFS supported; Client Tracking; Band Steering; Isolate Clients Function; Accounting; Coovachilli Hotspot; | Client; 802.11r (FT); Roaming Thresholds; Background Scan; Multiple Client SSID Profiles; |

| | |
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| Load Balance: | Link Prioritizatoin and Aggregation; Load Balancing; Diffserv; SFQ; HTB; Priority based Queuing |

## Power requirements

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| Operating Voltage: | 12 .. 48 VDC (±25%) |
| Power Consumption: | max. 20 W |

## Diagnostics features

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| Alarm and event actions: | Email; SMS sending |
| Monitoring: | Watchdogs (Hard- and Software); Link Supervision; MQTT Broker |

## Security features

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| Multipoint VPN: | VXLAN, CSD dial-in, OpenVPN, IPSec, GRE, L2TP, PPTP, IKEv1/v2 |

## Service

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| Other services: | DNS Cache; |

## Software

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|---|---|
| Firmware Storage: | Fail-safe update (FOTA); Software Update via USB, HTTP(s) (push), FTP (pull), SFTP (pull), TFTP (pull) |
| Radius Server: | External Radius Server Management User Authentication |
| Software features: | Software Development Kit (SDK); |
| Software Version: | 5.0 (updates free of charge) |
| Operating system: | NRSW (NetModule Router Software) |
| Switching: | VLAN (802.1Q) |
| Redundancy: | Multipath TCP, VRRP (Virtual Router Redundancy Protocol), RSTP (Rapid Spanning Tree Protocol) |
| Diagnostics: | Netflow (Softflow), Ping, Traceroute, Tcpdump, Speed TestGNSS Diagnostics |
| Configuration: | DHCP Client and Server |
| Security: | Certificate Management (SCEP Client, Signing Requests), Certificate formats: PKCS12, PKCS7, PEM/DER, RSA/Ed25519 (OpenSSH/Dropbear), "Let's encrypt" support, Elliptic Curve Certificates (ECC), 802.1x for LAN, Stateful Firewall, Connection Tracking, Bridge Filtering |
| Time synchronisation: | NTP Client and Server, SNTP Server |
| Routing: | Destination, Policy, Multipath, OSPF, BGP, Multicast, TCP-MSS Clamping, NAT, NAPT, Masquerading, Mobile-IP |
| Management Software: | Compatible with "Connectivity Suite" |
| Cellular Functions: | Multi-APN; Signal Strength Monitoring; Dedicated Bearers |

## Ambient conditions

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| Degree of Protection when Installed: | IP40 |
| Operating temperature: | -25-+70 °C |

## Mechanical construction

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| Dimensions (WxHxD): | 164/190 mm x 58 mm x 139.5 mm |
| Weight: | 800 g |
| Mount Type: | Flat surface mounting |
| Mating Side: | all from front |

## Approvals

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|---|---|
| Basis Standard: | CE according to 2014/53/EU (RED), 2011/65/EU (RoHS) |
| Wireless standards: | 5G FCC ID: RI7FN990A28HP, WLAN FCC ID: TK4WLE600VX, |
| UK Regulation Compliance: | UKCA Mark |
| Suitability - Indoor: | Yes |

## Reliability

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| Guarantee: | 5 years |

## WLAN Access Point

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|---|---|
| Security: | WPA3/2/1, WPA Personal (TKIP, CCMP), WPA Enterprise (Radius: EAP-PEAP/MSCHAPv2, EAP-TLS), Opportunistic Wireless Encryption (OWE), Mesh (Open, SAE) |

## WLAN Client

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| Security: | WPA3/2/1, WPA Personal (TKIP, CCMP), WPA Enterprise (Radius: EAP-PEAP/MSCHAPv2, EAP-TLS) |

## Further Instructions

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| Software Download: | https://share.netmodule.com/public/system-software/latest/ |

## History

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| Update and Revision: | Revision Number: 0.6 Revision Date: 03-19-2026 |

**Variants**

| Item # | Type |
|---|---|
| 942998133 | NB2800-NWac-G |

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